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ABSTRACT

This paper reports initial results from an evaluation of the first 2 years of implementation of a Master's level teacher preparation program at Wheelock College (Massachusetts) for teachers of students with special needs (TSSN). An overview of the program notes that the intensive 14-month experience leads to a Master's degree in education and standard certification in both elementary and special education. The program is organized around three phases (fundamentals, teaching-to-learn and learning-to-teach, and knowledge integration) and four learning vehicles: (1) coursework; (2) practice (a full-year, full-time internship); (3) mentoring and supervision by both the cooperating teacher and college supervisor; and (4) utilizing prior experiences and self-examination. Evaluation involved extensive data collection (such as employer evaluation surveys and student surveys) during and following the program. Findings are detailed for each of the four learning vehicles. The evaluation concluded that the program design is coherent with the Professional Development School model and students are learning as expected, but that the mentoring and practice components seem less effective than expected. (Contains 24 references.) (DB)

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Are They Learning as We Expected Them to Learn?
An Evaluation of the Preparation of Special Education Teachers Using a Professional Development School Model

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INTRODUCTION

This paper reports the initial results from a full-scale evaluation of the first two years of a master's-level teacher preparation program. The program, entitled Teacher of Students with Special Needs (TSSN) was launched in the summer of 1993 as a collaboration between Wheelock College and The Walker School in Needham, MA. In 1994, the program expanded to include three public elementary schools and a second private school.[1] The program was designed to prepare teachers to serve challenging student populations in both general and special education classrooms. The TSSN curriculum integrates the study of educational theory with practical experience by having students pursue a yearlong, guided internship at a professional development school (PDS) while simultaneously completing in-depth coursework.[2] Through this integration, the TSSN curriculum requires students to analyze and synthesize ten sub-fields, or strands, of professional knowledge and practice which are embedded in the curriculum and to translate them into the act of teaching.

This paper provides a formative and summative indication of the effectiveness of the first two years of the program for preparing new professionals and presents an elaborated and replicable model for evaluation of other programs modeled as a PDS. The evaluation answers two questions: 1) Are students learning in the ways we expected them to learn, given the design of the program? 2) In what ways do faculty expectations for how students will learn vary from how they actually learn while working intensively in PDSs?

OVERVIEW OF THE *TEACHING STUDENTS WITH SPECIAL NEEDS* PROGRAM

The TSSN program is designed as an intensive 14 month experience leading to a Master's degree in education as well as standard certification in both elementary and special education. In the first year of its existence, the program graduated 11 students. During the second year, the

1 The original PDS partner was The Walker School (ungraded) in Needham, MA. In year two, we added the Mason School (k-5) and the Lyon School (k-5) in Boston, and the Haggerty School (k-6) in Cambridge, and a second private school, The Germaine Lawrence School (ungraded middle school) in Arlington, MA. In year three two more schools have joined the network, The Devotion School (grades k-8) in Brookline and Watertown Middle School.

2 Our PDS efforts are congruent with those laid out by Goodlad (1990) including simultaneous renewal of colleges and schools through the shared activities of teacher preparation, in-service professional development, research of classroom practice, and expanding curriculum to meet the needs of children. We have incorporated into this vision a strong emphasis on improving preparation, practice, and policy particularly in relationship to the education of children with special needs.

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program graduated 24 students. Now in its third year, the program has enrolled 54 students.

Each PDS relationship is built upon the agreement that the college and each school will work together to prepare pre-service teachers to work with diverse learning populations and to engage in-service teachers in a program of professional development aimed at improving practice with children with special needs.

Working in close partnership with the administration and faculty at each school, TSSN progresses through three phases: an *Introduction to Fundamentals* phase, *Teaching-to-Learn -- Learning-to-Teach* phase, and the *Integration* phase. As the program progresses, the course of study draws upon both the experiences and coursework of candidates in order to teach ten practical and theoretical curriculum strands presented in Table 1. In the Introduction to Fundamentals phase, candidates attend an intensive summer session at Wheelock College during which knowledge regarding typical child development and literacy and numeracy development is presented; candidates are introduced as well to essential knowledge regarding the nature, etiology, prevalence and best school practices associated with high- and low-incidence disabilities (see Figure 1). This phase employs a traditional course format for teaching and learning. In the second phase, students assume one-year, full-time, paid positions as intern teachers in either substantially separated classrooms, resource classrooms, or in kindergarten through ninth grade classrooms that are including special needs students.[3] Increasingly deepened learning is fostered in curriculum, instruction, assessment, teacher research, and family studies through a mixture of a) coursework closely linked with classroom practice; b) weekly interactions with mentor teachers and college supervisors; and c) sustained, guided inquiry into the human ecology of children and families (Bronfenbrenner, 1979). In the final phase of the program during the second summer, candidates engage in traditionally organized, integrative courses intended to complete the process of weaving together the ten curricular strands.

3 The Massachusetts state certification for Teacher of Students with Special Needs covers nursery level through ninth grade.

Table 1

Ten Curriculum Strands for TSSN

Data Analysis: Skills of analysis and synthesis are necessary for teachers to carry out systematic and unbiased inquiry into teaching and learning. This strand sets the intellectual tone of the program, and is concentrated in the courses *Research Methods* and *Special Education Assessment*, where interns pursue researchable questions about their students. In *Learning and Teaching* study themselves as teachers-in-formation.

Child Development: Interns must understand and apply with children, a variety of theories of social, emotional, cognitive, and moral human development. Especially important is an understanding of Bronfenbrenner's ecological theory of human development. Interns are required to enter the program with background in child development. Students must take advanced courses in child development.

Multicultural Understanding: Interns are expected to build a solid awareness of racial, ethnic, cultural, religious, ability, and gender differences and similarities, and to apply that awareness in planning classroom environments, curricula, and pedagogies. This strand is not an "add-on" feature, but fully infused throughout the curriculum. Additionally, coursework in some aspect of multicultural education is required.

Disabilities and Handicaps: Through their work with multidisciplinary teams in classrooms and schools, independent reading, research projects, and a course *Impact of Special Needs on Learning and Development*, interns learn the primary medical, social, and psychological issues involved in disabling conditions and the key curricular needs and teaching considerations they imply. They learn the differences between socially constructed handicaps, and physical, cognitive, and emotional disabilities.

Curriculum and Instruction: Teaching begins where accurate assessment of children, meaningful schoolwork, and a supportive classroom ecology intersect. This idea is reinforced through modeling by mentors, in supervision, and during tutorials with faculty. In coursework, these ideas are elaborated through material presented in *Special Education Assessment, Issues in Elementary Literacy and Numeracy I and II*, and *Integrative Special Education Curriculum.*

Reflective Practice: Interns reflect upon their practice in weekly supervision, tutorials, journal writing, and in the course *Learning and Teaching*. The goal of this strand is to promote self-evaluation and awareness, but also to instill in interns a willingness to reach out for learning. Interns are encouraged to analyze their strengths and weaknesses as a teacher and learner, and to develop strategies that help them maintain an ambition to learn.

Teamwork: Throughout the program, interns are required to work in teams - in cooperative learning teams, as classroom teaching teams, as treatment teams, on teams with parents - to help them learn the skills of communication, cooperation, work sharing, negotiation, conflict resolution, and goal setting. The goal is to help interns see the possibilities in teamwork and to counteract the isolating tendencies of public schools.

Family and Community: Working with parents is crucial and parents of children with special needs are often wary of school personnel. Interns build non-judgemental relationships with parents of children in their classes through assignments in the course *Family Support*. They are monitor and analyze their own responses to parents and community involvement. They attend and participate in at all venues where parents play significant roles.

The Role of Special Education: Students study the history of the field and the key intellectual, political, and social currents that shape policy and practice. Students receive guidance in special education procedures and processes, and participate in decisions at the team, school, and classroom level. In the course *Democracy and Special Education*, interns study American democracy as it struggles to find adequate means for educating its youngest citizens.

Clinical Teaching: In the Clinical Teaching experience, planning and teaching responsibilities are divided equally among members of the classroom team. While the mentor teacher retains ultimate responsibility for teaching and curricula, the intern shares the work in all areas of practice. Through observations, weekly clinical supervision, team planning, and guided tutorials, the intern engaged in the practical work of building knowledge and skills for curriculum development, teaching, and overall classroom management.

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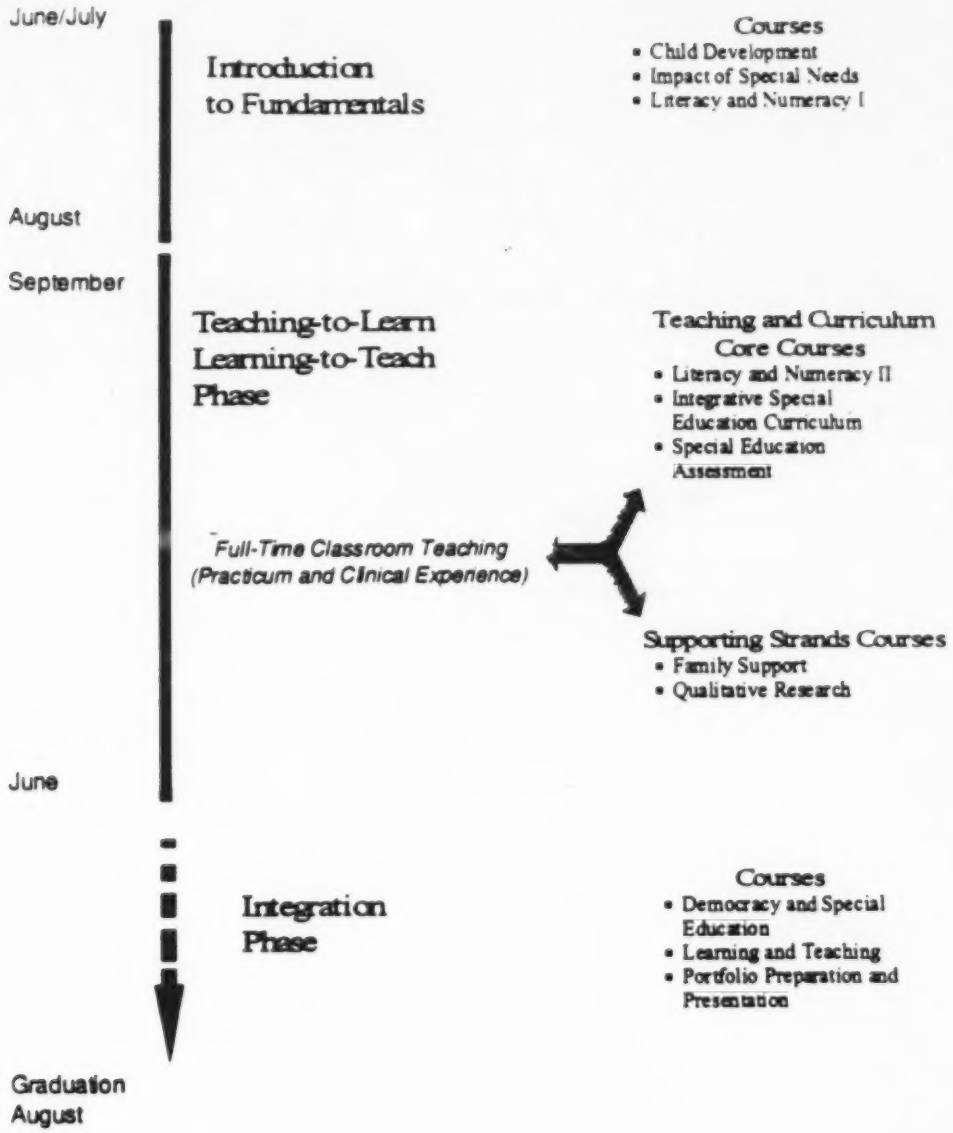
Figure 1

Overview of TSSN Program



Design Rationale

The program design responds to the concern that teacher preparation programs too often bifurcate coursework and teaching practice (Darling-Hammond, 1994). Additionally, the preparation of special education teachers and regular education teachers has been highly

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segregated until now, with a significant split between the two fields on what is considered useful professional knowledge and best practice (Glatthorn, 1990; Paul, 1985). We have addressed this problem by using a model where teaching and learning are intended to be simultaneous acts, shared by novice teachers, special and regular education teachers, and college faculty from both special and regular education traditions. Additionally, we do the preparation work together in the context of actual practice. The program has also modified the content of the training in order to deepen beginning teachers' subject-matter and pedagogical knowledge and skills (Carter, 1990; Cohen, McLaughlin, & Talbert, 1993; Shulman, 1987) -- and to apply that knowledge and skill to all children regardless of their special needs (Cambone, 1994). Thus, the content emphasizes students' understanding of interpersonal and intrapersonal differences of children (Goffman, 1963; Meyen & Skrtic, 1995), situates the development of children within both cognitive-developmental (Piaget, 1966; Vygotsky, 1978) and ecological-developmental frameworks (Bronfenbrenner, 1979), and strengthens students' grasp on the sociopolitical nature of teaching in a democracy (Delpit, 1995; Perry & Fraser, 1993; Skrtic, 1995).

Finally, the program design emphasizes the work of teachers as a fundamental component in the reform of schools and education, especially when those reforms affect children with special needs. In many schools across the country, students with special needs are being included in regular classrooms in record numbers. This movement toward merging special and regular education is seen by some as a primary step in reforming mainstream school curricula, instructional strategies, and program delivery schemes (Goodlad & Lovitt, 1993; Stainback & Stainback, 1990). To meet the learning needs of these children, teachers require especially deep knowledge, skills, and tolerance for the significant differences among children (Cambone, 1994; Paul, 1985). The aim of TSSN is to provide teachers with broad understandings, flexible abilities, and resilience in the face of such challenges.

LEARNING FRAMEWORK

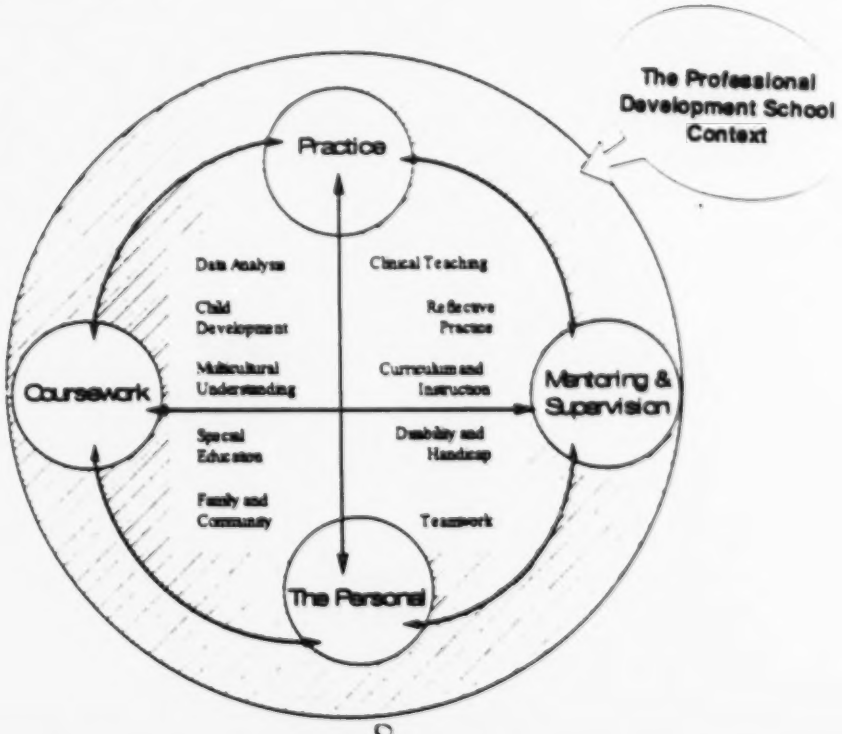
In order to learn to teach, students must have multiple avenues toward knowledge and must be able to use them as their needs dictate. The TSSN program has organized several

opportunities for learning which students use in part or in whole as they are immersed in the 14 months of study. These opportunities can best be understood by studying the learning framework illustrated in Figure 2. This framework includes *four vehicles for learning*, the *ten curriculum strands* to be learned, the *context of the learning experience*, i.e., a PDS, and the *transactional relationship* among them (Dewey and Bluntly, 1973; Spiegel, 1971).

Specifically, the four vehicles of learning systematically made available are *Coursework*, as manifested in the program of study, *Practice*, as it is embodied in the experience of a full year, full time internship, *Mentoring & Supervision*, as it is practiced in the mediation of student learning by the cooperating teacher and college supervisor, and *The Personal*, as represented by the program faculty's strong attention to students' individual ways of learning and understanding -- what we refer to in this paper as their *ways of knowing*. Students are actively encouraged to use these vehicles for learning as they encounter the challenges of the overall curriculum.

Figure 2

Learning Framework for TSSN



Part of that challenge resides in how students come to understand and apply the ten discrete strands of the curriculum which are woven together and provide the program's knowledge base. In Figure 1 the ten curriculum strands are displayed at the center of the figure in no particular order to show they have equal status; they are highly interactive with each other and are ubiquitous in teaching and learning. The framework shows how we have arranged the knowledge represented in these strands into an overlaying relationship with the vehicles for learning, and then have placed the entire interaction within the sustained experience of actual teaching in a PDS. Thus, the program creates a dynamic learning milieu by literally forcing an ongoing interaction between the content, the vehicles, and the context for learning. Students are given a more authentic opportunity to learn about teaching by doing teaching in a highly transactional context.

DATA COLLECTION AND ANALYSIS

Our evaluation of the first two years of the program was summative in that it provided an indication of the effectiveness of the program as originally conceived and implemented. It was also formative in that results will now be used to make changes in the program to increase its efficiency and effectiveness; and an ongoing evaluation model is now developed and embedded into the program.

As a PDS, the TSSN program represents a significant departure from traditional programs that provide theoretical instruction and practice sequentially. Therefore, our evaluation design departs from traditional models. We needed a model that would assess the strengths and weaknesses of a program that continually interweaves theory and practice. Furthermore, we required a model that would facilitate our accountability to multiple constituents.

Data Collection. Data for the program evaluation are being collected in four stages for each year's graduates: a) at the start of the program; b) at the end of the Learning-to-Teach/ Teaching-to-Learn phase; c) at graduation; and d) from six months to a year after graduation. Data sources include the students themselves, mentor teachers, college supervisors, program faculty, and in the final stage, graduates' employers. Table 2 represented the data collection

strategy which included: questionnaires; individual and group interviews; narrative evaluations; and state certification checklists. Several items in the table are in need of elaboration.

First, at both the start and finish of the program, all students are asked to conduct a self-evaluation composed from items on the Council for Exceptional Children core of knowledge and skills essential for beginning teachers (Swan & Sirvis, 1992). These pre-and post-program self-evaluations were used during the first two years of the program to help guide student reflection on their own learning at final portfolio presentation.

Second, while all students are required to present their portfolio orally prior to graduation, only first year students' presentations were tape recorded and transcribed because of prohibitive costs of transcriptions. In the second year we used faculty notes of student presentations, instead.

Third, state certification checklists evaluate students on every competency and sub-competency on a scale of 1, exemplary through 5, inadequate. They are filled out at mid-internship and at the end of the internship by interns, supervisors, and mentors, alike. Ratings on each competency for each graduating class were reviewed and calculated. The final narrative evaluations written, by mentors and supervisors, provided much of the qualitative information necessary to understand the activities students undertook and to judge the quality of learning outcomes.

Fourth, the program evaluation survey queried graduates on their knowledge of the curriculum strands, their integration of didactic and applied educational and training experiences, and their ratings of support and supervision, program organization and administration.

Finally, the employer evaluation survey asked first year employers to rate students on their grasp of the curriculum strands as employers observed the strands translated into practice. Portfolios, meeting notes, focus group audiotapes, and comments from surveys were all transcribed.

Table 2

Data Collection Strategy: Sources, Types, Timetables

	Student	Mentor	Supervisor	Instructor	Employer
Initial	CEC Core of Knowledge self-study				
Internship	Comments from ten 3-way conferences: five for provisional and five for standard certifications	State Certification Checklists Narrative Evaluations Informal Feedback	Bimonthly assessment of student progress State Certification Checklists Narrative Evaluations	Bimonthly assessment of student progress toward learning goals	
At Graduation	Student Portfolio CEC Core of Knowledge self-study				
6 - 12 Month	Program Evaluation Survey Focus Groups	Focus Groups			Performance Evaluation Survey

[a] All first year students; sampling of second year students

Analysis. The ten curriculum strands around which the coursework is organized provided the units of analysis for the evaluation. Qualitative data were coded, and numerical data from surveys and checklists were calculated and sorted, using these units of analysis. The data were then sorted and grouped according to roles in the program, that is, the interns, mentors, supervisors and instructors. At this point, data were analyzed within each group along three dimensions: a) the relevancy of the content of each strand; b) the sufficiency of goal achievement within and across each strand; and c) the discrepancy between the expected and actual outcomes (Maddaus, Scriven & Stufflebeam, 1983; Patton, 1990). Relevancy examined the responsiveness of the program to the demands of good teaching. Sufficiency of goal achievement considered whether the level of achievement required for successful completion of the program enabled graduates to adequately meet the challenges of classroom teaching.

Discrepancy between expected and actual outcomes represented two aspects: a) whether the stated goals of the program were actually those realized at completion of the program; and b) if other goals were realized in place of, or in addition to, the stated goals of the program.

In a second analysis, data that were originally coded using the curriculum strands were reanalyzed to ascertain patterns that explained both where and how learning took place. Data were analyzed within role categories and across categories. Then, using the learning framework elaborated above, we located student learning within or among the different vehicles of learning. Finally, we traced repeating patterns of interaction among those vehicles as a test of the robustness of the framework for explaining whether students were learning what we expected in the ways we had expected.

In summary, the dimensions of analysis provided the lens through which to examine the data on the curriculum strands and the frame to support their mastery. In turn, organizing the findings according to students' readiness to teach, the content they learned, and the effectiveness of the learning vehicles and their interactions allowed us to ascertain the relevancy, sufficiency, and discrepancy between the intended and actual outcomes of the program.

FINDINGS

In reporting our findings, we begin with an overall picture of students' readiness to teach upon graduation. We then report on assessments of content learned by students and the relative value of each learning vehicle, both singularly and in interaction with each other.

Readiness to Teach: The Large Picture

Of the 11 students who began the program in year one, 100% graduated with a master's degree and qualified for standard certification in both special needs and elementary education.[4] In the second year, 26 students began the program. Of those, two students failed to meet program standards and were asked to leave. All but one student earned a standard certificate in elementary education and special needs.

4Massachusetts certification is earned first at a provisional level in any field. Within 5 years, additional coursework and a clinical experience can lead to standard certification in that field. Additional field certificates are earned through additional coursework.

Upon graduation, students from both year one and year two indicated that they were either confident or highly confident in their readiness to teach. Specifically, students felt ready to develop curricula, provide effective instruction, and manage behavior of individuals and groups (see Table 3). The narrative reports filed by both mentors and supervisors corroborate students estimations of their own readiness to teach.

One hundred percent of year one students were employed in teaching positions of their choice within one month of graduation. Of the 23 students in year two, all except one were employed within one month of graduation: Twenty were employed as head teachers; two were employed as assistant teachers; one chose to travel in Europe for a year. One-third of all graduates have been hired by either the school or district where they had been an intern.

Table 3

Student Readiness to Teach

	Confident		Highly Confident	
	Year One [a]	Year Two [b]	Year One	Year Two
Develop & Use Curricula	13[c]	6	87	94
Provide Effective Instruction	13	18	87	82
Manage Individuals & Groups		24	100	76

[a] n = 7
[b] n = 17
[c] all results are reported in percentages

To date, employers of 7 of the 11 first year graduates have provided survey information indicating extremely high satisfaction with TSSN graduates. More discussion on this fact will be presented in a later section, *Tracing the Interactions.*

The Content

While there was some variation regarding the kind and level of learning students experienced among the ten curriculum strands (refer to Table 1) and between the cohorts of the two years, we found a generally high level of mastery of the strands. Analysis of the students' final portfolios, final narrative evaluations filed by mentors and supervisors, survey responses and focus group discussions verified that of the ten strands, interns engaged deeply and appeared to gain the greatest mastery in the strands of Curriculum and Instruction, Teamwork, Family and Community, and Reflective Practice. A majority of graduates spoke of having learned not only new skills, but having integrated knowledge into a new way of thinking. Mentors, supervisors, and new employers alike, reported that graduates exhibited a great deal of confidence and clarity of thought in these knowledge areas.

Consider as an example one intern who changed her thinking regarding the role of families in the education of their children. As part of her coursework, the intern had begun a series of home visits to the family of a youngster in her class. The child was viewed by the school personnel as particularly troubling, as he had significant difficulties attending to learning and would often have behavioral difficulties. They discouraged the intern from becoming involved with the family at all, citing mom's past drug involvement and her continual reluctance to engage with people at the school. But the intern persisted in her visits and, over the year, this boy's mother explained her ideas, values, and beliefs about child rearing. These conversations changed how the intern thought about parents in general, and their relationships with schools:

> After the visit, I respected [these] parents too much. And there's no way I can turn around and blame them [for their son's school difficulties]....I would be doing a disservice to them. Because I really think they opened their doors to me to come and learn about their son...I'm definitely not going to have any assumptions about parents or their home life -- or their past life that they might have had. [Or] the community they come from...Its hard, but I this really woke me up to that topic.

The intern went on to explain how her studies in the program were transformed, and became increasingly focused on issues of family, community, race, class, and violence -- and that her new knowledge changed her classroom practice.

In some curriculum strands, students expressed slightly less confidence overall -- even though individual students often excelled in these strands. One explanation for this lessened confidence is that, while students knew a substantial amount in these areas, they still did not feel they knew enough. Even in the areas where they felt most confident, they were nevertheless aware that they had only touched the tip of the iceberg in 14 months. One student said it well when, during a focus group she said that, even after finishing the program and then being in her own class for 5 months, "I need to feel more fluent in implementing the whole spectrum of language arts, science, social studies, math, and reading." Overall, when students were rated (or rated themselves) as less secure in a knowledge strand, they seemed to be referring more to their confidence in the ability to act fluently with knowledge they had gained, which is often a struggle for beginning teachers.

It seemed clear in the data that what added to the sense of disfluency in action was the fact that students had studied more deeply than broadly in certain strands (often, as we'll show later, depending upon some personal interest or feature of their site that drew their keen interest). Students' studies in the strand of disabling conditions provides a clear example of this. Analyzing this curriculum strand, we found a disparity between students' confidence in content knowledge - that is, the *characteristics* of varied disabilities, and the practices that are responsive to particular disabilities - and their understanding of, and sensitivity toward, the *nature* of disability as it is socially constructed as a handicap. In other words, students gained an approach to understanding children with disabilities - even though they may not have gained deep knowledge about many specific disabling conditions. One student said, "There are too many different disabilities to have a complete understanding -- especially in 14 months!" Thus, students believed their knowledge in all areas was neither deep enough nor had it been fully transformed into knowledge-in-action.

However, what seems to undergird graduates' confidence to teach is their deep knowledge and skill at data analysis -- a strand emphasized most strongly by the program design. Two courses, ***Qualitative Research Methods*** and ***Special Education Assessment***, require

sustained, yearlong projects aimed at deepening students' understanding, and honing their skills for finding and researching significant questions regarding their students. While one of the outcomes of the course is a highly developed skill set for doing inquiry, students also report valuing their ability to conduct unbiased and systematic inquiry to improve teaching. Without exception, the students show an unusually high degree of confidence that they know how to ask the right questions about their practice, to do the necessary research to answer those questions, and to translate their knowledge back into practice. This, they tell us, compensates for any gaps they have in their knowledge within all the curriculum strands. Graduates have a strong sense of responsibility to keep on learning, and they know they have the skills necessary to do so. One student seemed to capture well what many of her colleagues had said regarding this phenomenon when, during her portfolio presentation, she said:

> I think that as a teacher you're always going to be a researcher. I mean teacher and researcher go hand in hand. Especially a special ed teacher. Because whatever case you have or whatever child you have, their history is very important to their schooling now. So I think that whatever kids I have this year I need to research what's going on in their lives, what has gone on in their lives, what disabilities they have,...I am always going to be researching. No matter what. Whether I want to call it research or not, it's always going to be research....I'm going to look at their files. And then I'm going to take notes on those files. Find out questions I have. Things I don't know yet....and then follow through.

The Vehicles for Learning

While there is a generally strong indication that students are learning the curriculum strands, the data indicate that there is substantial variance regarding which of the vehicles, or combinations thereof, are best supporting that learning. Students report that coursework was a highly satisfactory vehicle for learning; similarly, they were satisfied with their freedom to develop and use their personal ways of knowing to make sense of becoming a teacher. However, students perceived much greater variance in the quality of the school practices they observed and were required to participate in at their PDS sites, although students from year one were substantially more satisfied. Similarly, year two students were highly critical of the mentoring they received from cooperating practitioners, though somewhat more satisfied with the learning

they experienced through their supervisory relationships with college faculty. This dissatisfaction can be accounted for, at least in part, to the doubling of the program size in year two, to the greater diversity in school sites, and to the variations in the skills or philosophies of mentor teachers.

Student estimations of the relative quality of these vehicles for learning were compared with data found in faculty assessments of student performance in coursework, supervisor reports of tutorial sessions, data from mentor teacher focus groups, and PDS liaisons' evaluations of individual classrooms and school sites. Generally, these data sources are in agreement with student estimations of the vehicles for learning.

The discussion of each learning vehicle begins with a short description of the program activities that make up the learning vehicle, followed by a report of the findings. To simplify reporting, summary data from the postgraduation survey of students are displayed in a series of tables, and are used as points of departure for deeper discussions of the findings.

The Personal

This vehicle for learning embodies a twofold strategy on the part of faculty to capitalize on interns ways of knowing. First, activities and assignments are designed to place a high value on using the prior studies and experiences of students. In doing so, faculty model for interns the same constructivist methodology they advocate interns use with children. Second, the program faculty put a particularly strong emphasis on writing critical analyses and engaging in discursive activities that require students to engage in extended self-examination of personal values, ethics, biases, and ways of knowing -- particularly in relationship to the ten curricular strands. By both valuing the personal, yet at the same time requiring constant examination of the personal, faculty assist interns in lifting that which is implicit about their ways of knowing, examining it, then transforming it into more explicit ways of knowing and working.

Table 4 displays the frequency of student response when asked whether their coursework and internship valued and built on their prior experiences, as well as whether their ongoing dilemmas of practice were used effectively in making the connection between theoretical

material presented through coursework and practical applications in their teaching. Clearly, students believed that the use of their personal knowledge was valued, and that the ways in which the program organized opportunities to use that were adequate.

The personal vehicle for learning is perhaps the most difficult to describe, especially as it is hard to distinguish what students brought initially to the learning experiences of the program, and what developed as a result of that learning. But as part of our transactional model for learning, it clearly plays a crucial role for students.

Table 4

Student Ratings of the Opportunity to Learn through The Personal

	Less than Adequate		Adequate or Better	
	Year One [a]	Year Two [b]	Year One	Year Two
Built on Prior Experience		6	100	94
Used Current Experience		12	100	88

[a] n = 7
[b] n = 17

One student seemed to capture the crucial nature of the personal - both the personal that students drew upon as they learned, and the personal that they synthesized as a result of the learning -- when she remarked,

> I think that I grew so much in these experiences...and each one has had a significant impact on my feelings and function as a teacher....These are the experiences I have been through and brought me to where I am now....I've learned about self-esteem, communication, collaboration, research, continuing to increase knowledge, how to be a professional, how to work to professional standards, how to strive to meet high expectations, and to set high expectations for [my]self and others [I'm] working with, how to value individuality and multicultural aspects in the classroom and in the world, how to pace [my]self, how to be just an overall productive and valuable source in the education system and the world....And I have got to keep challenging myself as much as this program challenged me. I have to continue to expect a lot from myself and not fall back from the high standards that I've been meeting.

The personal learning that students experience points to interactions with other learning

vehicles, especially certain courses and supervisory relationships. The rigor of both *Research Methods* and *Special Education Assessment*, for instance, stretched students' notions about their own capabilities as learners. All of the first year students, for example, pointed to a greatly increased sense of personal power and self-esteem, and commented during their portfolio presentations that the work of rigorous inquiry taught them to be healthy skeptics, unwilling to accept assertions about children and practices without first analyzing multiple data sources. They had become strongly aware of their personal biases, their origins and the ways they manifested themselves in daily work.

Similar experiences happened for students in the course *Learning and Teaching*, which asks students to learn new material in the liberal arts and to study how they learn it. One second year student wrote, "[this] course really hit on the strand of reflective practice. It helped me to tone my thinking about what I was reading and thinking." And still another wrote, "*Learning and Teaching* was the most ground-shaking class for me. It felt like my brain turned [for] perhaps only one of three times in my life. This course challenged everything [to] such an extreme. I loved the brutal honesty..."

Coursework

Students report relatively high satisfaction with learning done through coursework, finding both content presented and assignments given to be meaningful and relevant. To understand the role coursework plays in the overall program, a brief description of its content and organization is needed.

Coursework in the *Introduction to Fundamentals* phase of the program (refer to Figure 2) lays the groundwork for learning in the internship by assuring that students have an understanding of the typical pathways by which children grow and develop, and the ways in which disabling conditions can alter those pathways. The basics of literacy and numeracy development are presented during this phase; introductory knowledge regarding special education practice and procedure is communicated through a third course. One goal of this phase is to guarantee that all students enter the next phase, *Learning-to-Teach /*

Teaching-to-Learn, with a common knowledge base and vocabulary upon which faculty and mentors can build as the internship progresses.

During the second phase of the program, five courses extend across the entire year; all are designed to draw their content directly from the practice in which students are engaged. That content is then used as both a complement and a contrast to research-based, best practices for understanding and teaching children in academic, social, emotional, behavioral, and physical domains. Three courses are team taught on one afternoon each week and comprise the teaching and curriculum core. They focus on advanced issues in literacy and numeracy development, integrative curriculum, and assessment. Students receive a third of their credit in these courses for working with their mentor teachers to connect coursework and classroom practice.

The two remaining courses meet on one full Saturday per month - *Research Methods* and *Family Support*. Using a presentation/work session format, they provide students an opportunity to conduct rigorous and sustained studies of individual children with special needs and their families, respectively. These courses are intended to situate the child and his or her family in the context of their human ecology (Bronfenbrenner, 1979), and to help students locate and account for the myriad influences which place children and families at sociocultural risk or promise (Garbarino, 1992). Paramount among several activities is each student's repeated self-analyses of their own biases, especially as they manifest themselves in daily practice with children and interactions with parents. Students also conduct repeated analyses of the classroom and school ecology that may be helping or hindering each child's growth and development.

To reinforce opportunities for learning in teams and to provide for cross-semination of ideas, students are carefully grouped and regrouped for different learning experiences across the 10 months of the internship using the following scheme: Cohorts ranging in size from three to nine work at each PDS site and meet among themselves periodically for support sessions. For the teaching and curriculum core, two or three PDS cohorts are blended, usually to highlight the contrasting features, philosophies, or programming strategies of each school. For the Saturday classes, the students are reorganized one last time into three different sections for each course,

with attention given to creating in each section the greatest variety of student experiences.

Finally, in the *Integration* phase during summer two of the program, students take their foundation course in the history, ethics, and law of special education. This course challenges students to reinterpret their experience within the profession's historical context, and to form a coherent personal strategy for becoming not only a teacher of children with special needs, but a professional advocate for them as well. As described earlier, in the *Learning and Teaching* course, students learn new material in the liberal arts; as they learn, they reflect upon the process of their own learning and then explore their personal strategies for teaching. Finally, degree candidates assemble and present their master's portfolio to their advisor and at least one other professional with whom they have worked during the program as final preparation for graduation.

Table 5 illustrates that students in both years of the program agreed that their coursework provided avenues for investigating effective teaching, and shows that students found their assignments relevant to their teaching because of the links made between assignments and actual teaching practice. Structurally, this linking can be accounted for by the cohort arrangement, described above, as well as the weekly mentoring and supervision provided students, and the effort instructors make to have actual teaching drive assignments.

Table 5

Student Ratings of the Opportunity to Learn through Coursework

	Less than Adequate		Adequate or Better	
	Year One [a]	Year Two [b]	Year One	Year Two
Presented Effective Teaching		6	100	94
Assignments Relevant to Teaching		6	100	94

[a] n = 7
[b] n = 17

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While students were satisfied, faculty and mentor evaluations of course content prompted changes to be made in the curriculum. From year one to year two, faculty altered the program offerings adding a second course in issues of literacy and numeracy. Faculty and students in year two assessed a need for more exposure to informal assessment strategies, work sampling and portfolio assessment in particular, in order to meet the needs of practice in public schools. The assessment course was revised to place greater weight on these kinds of activities. Preliminary results from this evaluation study have prompted changes in the child development requirement, and more advanced courses are now required.

Practice

In order to be accepted into TSSN, students must meet entry requirements for the Wheelock College Graduate School *and* be hired for employment at one of the PDS sites. No student is accepted unless both requirements are met. The PDS compensates students for their full-time work by having $10,000 applied directly toward each student's tuition. In most schools, administrators hired intern applicants to fill roles that were converted from teaching assistant slots. Thus, the school gets a highly committed second teacher in each classroom.

The PDS sites create a network of resources for TSSN; therefore students can interview at a wide range of schools representing several program designs. Different models are represented across 50 substantially-separated, resource room, and inclusion classes; in private and public placements; from kindergarten through ninth grade; in urban and suburban communities; at female, male, and mixed settings; and with mild through moderate special needs populations.

Table 6 is taken directly from the TSSN handbook and illustrates the professional responsibilities interns are to assume and a suggested timetable for assuming them. The agreement between the College and the teachers and administrators at each PDS site, stipulates that interns will be given ample opportunity to share the work and responsibilities of teaching in the areas of curriculum, instruction, classroom and behavioral management, and special education planning and reporting.

Table 6

Suggested Schedule for Interns as they Assume Responsibility

August -October	• participates in all orientation specific to the school site
	• assumes complete responsibility for planning and teaching approximately half of all reading and math groups
	• learns the school-wide and classroom routines, schedule, and behavioral management systems
	• assists in transitions and other classroom routines
	• begins weekly supervision with Mentor Teacher
	• learns the roles of various support staff and structures within the school
	• begins weekly, structured observations of classroom as part of their assignment for *Research Methods* class
	• begins building a relationship with one child's parent as part of their assignment for *Family Support* class
	• begins reading and assignments for teaching and curriculum core classes.
October - November	• begins assuming responsibility for transitions and other executive functions of the classroom (management of materials, homework, point routines, etc.)
	• asserts self in a disciplinary role with children
	• expands teaching role by assuming some whole-group instruction
	• begins to plan with Mentor the content area units the Intern will teach and co-teach with Mentor
	• begins preparation for presenting at first IEP meeting, clinical conference, or school staffing
	• begins to assume responsibility for written reports on children, including IEP, conference reports, and report cards.
November - December	• begins initiating shared, equal role in administering the classroom by overseeing sections of the school day
	• initiates and oversees a share of classroom projects, such as planning fieldtrips, assembly presentations, parent's night activities, etc.
	• begins to participate in some share of faculty committees and taskforces
January - February, and beyond	• begin implementing Intern-planned and led units in the content areas
	• begins moving toward fully shared responsibility for planning, developing, and teaching curriculum, as well as shared responsibility for managing the school day, and for administrative tasks of assessment, report writing, presentation at meetings, etc.

Data drawn from portfolios and student focus groups show that students from the year one cohort were generally highly satisfied with their opportunities to practice in each of these areas and had adequate to ample opportunity to do so. However, year two students found that their opportunities varied widely, and in some areas, were largely absent.

Specific survey questions in the area of curriculum uncoupled several sub-dimensions related to practice, and the findings corroborate those found in the qualitative sources. Tables 7, 8, 9 and 10 summarize student responses to the several survey questions regarding opportunity to learn in each of these sub-dimensions.

Table 7

Student Ratings of the Opportunity to Share Curriculum Work and Responsibilities

	Less than Adequate		Adequate or Better	
	Year One [a]	Year Two [b]	Year One	Year Two
Curriculum Development	13	41	87	59
Lesson Planning		41	100	59
Unit Planning	13	47	87	53
Event Planning		48	100	52

[a] n = 7
[b] n = 17

Regarding Table 7, in the first year of TSSN, the program was conducted in collaboration with one school, the Walker School, as the PDS partner, and the experience for interns was highly cohesive because of four factors. First, the school has a long-standing and clearly articulated model for preparing new professionals, and has been doing so for 20 years. Second, nearly all of the TSSN curriculum was taught in the first year by a combination of educational leaders from Walker and faculty from Wheelock. Third, Walker has a clearly articulated, time-tested curriculum for educating children with special needs. Finally, because of its long history of preparation, teachers at the school are accustomed to mentoring novices; at the same

time they rely heavily on them for the smooth operation of classrooms. In other words, the school was uniquely predisposed to meeting the goals of TSSN, and the high level of opportunity to learn for year one students can be explained in these terms. The year two results indicate an near even split between less than adequate and adequate or better levels of opportunity -- reflecting the expanded nature of the program with an increase of varied private and public school sites.

As the program expanded, it initiated partnerships with schools that had less developed ideas for what a PDS could or should offer to interns by way of learning experiences in curriculum and instruction. Indeed, the schools had invited the College to join them as a PDS largely because they were struggling to develop and institute new practices for educating children with special needs in inclusive ways. Thus, schools and teachers alike had less articulated models for curriculum and instruction and greater confusion regarding the management and education of special needs children. As a result, interns experienced less congruence between the content they were reading about in coursework, and the practices they observed in their classrooms. This may account for some of the disappointing opportunities students experienced in year two for all areas of practice, particularly those areas highlighted in Tables 7 and 8.

Table 8

Student Ratings of the Opportunity to Share Instructional Work and Responsibilities

	Less than Adequate		Adequate or Better	
	Year One [a]	Year Two [b]	Year One	Year Two
Reading, Math, & Content Areas		36	100	64
Individual & Group Instruction	13	24	87	76

[a] n = 7
[b] n = 17

Improving classroom and behavioral management is one of the primary concerns of general education teachers who are including children of various learning and behavioral needs. Data from surveys, PDS liaison reports, and mentor focus groups bear out the fact that the challenges mentor teachers were facing in several classrooms had begun to outstrip the knowledge and skills of these teachers. As we can see in Table 9, students in year one had the benefit of being prepared at a PDS known for its highly developed behavioral and classroom management strategies, and year two students had substantially less opportunity.

It is interesting to compare these disappointing findings with the students' reports of a high overall confidence to teach and their strong grasp of program content regarding curriculum, instruction, and management, reported earlier. While the learning vehicle of practice may have left some students wanting, it would appear that other vehicles ameliorated the effects of this loss. This issue will be taken up in depth later in this paper.

Table 9

Student Ratings of the Opportunity to Share Management Work and Responsibilities

	Less than Adequate		Adequate or Better	
	Year One [a]	Year Two [b]	Year One	Year Two
Classroom Management		36	100	64
Behavioral Management		36	100	64

[a] n = 7
[b] n = 17

Given that this program certifies students to work in the special education arena, of particular concern is the reduced opportunity many students had to participate in school-based teams doing the actual work of pre-referral, assessment, identification, and planning for students with special needs. Table 10 illustrates that the opportunity to learn about activities specifically related to special education procedures and processes were also diminished in year two. First year students had the benefit of being at a school that was dedicated solely to special education

practice, while year two students found themselves in public schools where elementary teachers had limited involvement in special education. Analysis of the utilization of interns many of the in public school classes shows that they were not assigned special education-related tasks with any frequency for two reasons. First, mentors were often forgetful of the changed roles of interns from that of assistant teachers, and administered their classes accordingly. Naturally, interns were reticent to assert themselves to claim more of their proper role. Second, because classroom management issues had become more complex in the wake of including more special needs children, teachers often found it difficult to release interns to do the intensive work of assessment, report writing, and IEP development. In fact in many reported cases, interns were left to cover the classes while mentors attended to these other activities.

Table 10

Student Ratings of the Opportunity to Share Special Education Work and Responsibilities

	Less than Adequate		Adequate or Better	
	Year One [a]	Year Two [b]	Year One	Year Two
Assessment & Report Writing		41	100	59
IEP Development	13	47	87	53

[a] n = 7
[b] n = 17

It has been suggested to us by principals and other school personnel reviewing these data, that the lack of opportunity to share in learning about special education procedure and practice is reflective of how elementary schools tend to operate. Until now, elementary teachers have had, in many places, limited need to participate in these processes. One conclusion is that these data are not indicative of a problem in learning opportunities at all, but are instead, accurately reflecting the real work of teachers in those schools. Some suggest that the program is over preparing students in this area. However, because many graduates are getting jobs in fully inclusive settings, employers of year one graduates inform us that they are pleased with this skill set, and find it useful in bridging the gap between regular and special education practice.

Similarly, some have suggested that those students prepared in our private settings may end up less ready for teaching in public education settings because they will be too specialized in their knowledge and skills. However, the data do not support this claim. Of the 23 students who did their internships in private settings, 18 are currently successfully employed by public schools; the remaining five are employed by private schools.

Mentoring and Supervision

There is a great deal of variation in the successful use of mentoring as a vehicle for learning. Reports from students, supervisors, and mentors alike, all point to the fact that, if mentoring is to be a positive and fertile avenue for intern learning, TSSN must place greater emphasis on building the understanding, skill, and tolerance of classroom teachers for the task. Moreover, and perhaps most importantly, the program must find greater incentives for teachers to do the difficult work of mentoring. Mentoring -- and learning to do it -- is made all the more difficult because TSSN is in partnership with schools that are trying to change practices around the special education of children. That work is difficult enough for many schools and teachers, and those schools in the TSSN network are no different. On the one hand, the teachers at our sites want to have more enthusiastic and better qualified people working beside them than they had in many teaching assistants. They are glad for the interns. On the other hand, many teachers wish they needed to put in less effort to bring those interns along. On yet another hand, to stay current these same mentors may need the very same information interns are receiving in their coursework.

As part of the PDS arrangement, classroom mentors are asked to divide teaching and other executive functions of their classroom with the intern; to provide at least one hour per week of direct clinical supervision for their intern; to work collaboratively with the college supervisor in guiding the intern's practical learning; to consult with course instructors as they are designing assignments that will meet course goals and still remain organic to the work of the intern's classroom; and, for some, to be guest presenters or full instructors.

Of these activities, supervision is probably the most important that mentors are asked to

provide. We ask them to set aside one hour per week for supervision and to protect it from all other influences. While the responsibility of shaping agenda belongs to the intern, we realize that the mentor will take a large role in shaping agenda during the initial period of the internship. Supervision agenda usually include the items suggested in Table 11.

The supervision model is built upon the one used at Walker School, and the interns in year one registered a good deal of satisfaction in the amount and quality of time they were given (see Table 12). While they did not always feel personally compatible with their mentor, and sometimes disagreed with their modes of operating or techniques they applied (i.e., not enough cooperative learning in one situation, or a detached approach to the children, in another), students agreed overwhelmingly that their mentors adequately modeled effective teaching.

Table 11

Suggested Supervision Agenda for Mentors and Interns

- Discussion of a mentor teacher's observations of an intern's teaching
- Discussion of group or individual behavioral management
- Planning for the next week's lessons
- Unit planning
- Discussion of concerns over individual children (academic, social, physical, medical, or behavioral)
- Events or activities planning
- Discussion of teamwork issues
- Discussion of course topics
- Discussion of monthly *essential questions* provided by faculty to reflect coursework and practice and used as a basis for intern's journal writing

As Table 12 shows, the picture in year two was substantially different. While the mentoring at Walker continues to be adequate, when the new PDS relationships expanded the program to other schools, the model for mentoring was difficult to institute. In each of the areas mentioned in Table 12, 41% of interns rated their mentor teachers in the lowest category possible. Part of this phenomenon may be attributed to bad matches between two personalities. Part of this is also attributable to the fact that the public schools with which we work do not have any tradition of mentoring on which to fall back. Teachers say they simply don't have the

requisite skills, nor does their school provide the requisite time to do the work of mentoring or to learn about it systematically.

Table 12

Student Ratings of Mentoring

	Less than Adequate		Adequate or Better	
	Year One [a]	Year Two [b]	Year One	Year Two
Modeled Effective Teaching		41	100	59
Sufficient Time to Plan	12.5	47	87.5	53
Feedback, Support & Guidance	25	64.5	75	35.5

[a] n = 7
[b] n = 17

Part of the interns' negative estimations of mentors and mentoring may be attributable to the fact that TSSN has made a commitment to work with schools and teachers who are already stressed as they adjust their practices to meet the needs of challenging students in inclusive classrooms. The problems that schools are facing as they change their structures, policies, and practices to include children are myriad and severe.

At several sites, the inclusion practices are still inchoate and underdeveloped. In many schools, the children being included have identified moderate, even severe, special needs. Especially in our urban classrooms, many children may also have a variety of special needs that are unidentified, and because of bureaucratic vicissitudes, will continue to go unidentified. Even so, the ratio of children with identified special needs to those without often exceeds proportions that would enable good practices to prevail. The schools are all coping with insufficient resources and assistance. Additionally, children who do not qualify for special education services, but nevertheless are having difficulty adjusting to the language and cultural requirements of public schools, are also present.

Faculty observations and work in the professional development activities of PDS bear out

the fact that the teaching dilemmas these teachers are facing do outstrip their knowledge and skills. While most are committed to including children with special needs, many are learning on the fly about those children. However, even our most skilled teachers in the inclusive setting are being challenged by insufficient time to meet, plan and collaborate with specialists and other teachers, and are often hobbled by the insufficient resources of their schools. Moreover, while many mentors are good teachers, we have found that not all good teachers are good mentors.

Most teachers are working hard to improve both their teaching and their mentoring, yet a variety of data sources indicate that several classrooms and teachers are inadequate to teaching children with special needs and to the purposes of TSSN. Some situations have been plainly exploitative of interns, and some classroom teachers have resisted developing any inclusive practices. In some of these cases, the teacher has confided that she took an intern largely to remedy the effects of having children with special needs included in her class against her wishes. One student commented on this phenomena when she said, "The mentor teacher should understand and agree with what inclusion means. The intern should not be the one to introduce it all!"

The program attempts to address some of these issues as part of the professional development program offered to mentors by TSSN. Most of the school sites have a liaison assigned and recognized by the college who is available to consult with teachers for one-half day per week regarding any number of issues and practices mentors may want to investigate. Liaisons also sit on a variety of school committees and are engaged in initiatives crucial to the development of practices conducive to the education of all students at the school. The TSSN program also offers a monthly seminar for mentors focused on building mentoring knowledge and skills, and an additional support seminar is also offered quarterly. Also, the College offers a five course program for building knowledge and skills for inclusion of children with special needs at a reduced cost to teachers working with TSSN. An evaluation of these endeavors is the topic of a forthcoming paper, and falls outside the goals of the current paper.

Supervision. The same individuals who act as PDS liaisons are most often the individuals who are the college supervisor for the student's certification-related activities. Thus, the liaison/supervisor is present at the school and in the intern's classroom on a weekly basis and for substantial blocks of time. They are able to co-plan and co-teach with interns, and are present for events and activities in sufficient enough quantity as to build a relationship with interns that earns them some amount of credibility with intern and mentor alike. Supervisors report that a key role for them has become helping interns and mentors to work through teamwork issues as they arise, and modeling effective mentoring strategies for cooperating teachers.

Student ratings of supervision were very high for the first year (see Table 13). This is due, again, to the unique qualities of the Walker PDS. Specifically, certification supervision was conducted by Walker faculty in conjunction with a single Wheelock faculty member as part of that team's own professional development plan. While that scheme continues, it has been harder to replicate at new sites, for all of the reasons mentioned previously.

Table 13

Student Ratings of Supervision

	Less than Adequate		Adequate or Better	
	Year One [a]	Year Two [b]	Year One	Year Two
Modeled Effective Teaching		25	100	75
Sufficient Time to Plan	12.5	25	87.5	75
Feedback, Support & Guidance		25	100	75

[a] n = 7
[b] n = 17

Supervisors in the second year assumed a large role supporting those mentors who were in challenging situations, and an especially important role supporting interns whose mentoring situations were problematic. Supervisors seemed more available for planning time than were mentors, and they were able to provide more feedback, guidance, and support regarding the

dilemmas of practice and issues of teamwork which interns faced. This effort on the part of supervisors may have softened the effects of inadequate mentoring, and strengthened the effects of adequate mentoring. Supervisors played a multi-layered role among themselves, interns, and mentors often providing a nurturing connection for all concerned as they negotiated the path of working as a team.

Tracing the Interactions

Within the design of the program there are four vehicles for learning: The Personal; Coursework; Mentoring and Supervision; and Practice. Each is dynamic, resulting in sufficient flexibility to optimize learning opportunities for each intern. No one domain of the curriculum strands is placed within one vehicle but crosses all of them. Each vehicle for learning is carefully articulated to connect to and complement the other. In this way, one or more vehicles can ameliorate or supplement the effectiveness of another for a particular student. Although complex, as one student put it: "I think that the structure of the program, overall, the craziness of it, makes a lot of sense."

Mutual Influence. To discern whether students are learning in the ways in which we expected them to learn, we need to trace the ways in which the many aspects and phases of the program are mutually influencing. The transactional nature of the program makes it difficult, however, to name the connections between and among the vehicles in a way that accurately portrays their full complexity and allows us to examine each without losing sight of the whole. Recall that Figure 2 represents our efforts to illustrate the way in which the learning vehicles and other aspects of the program are mutually influencing. As one student said referring to the program design, "...the metaphor of [the program] being a tapestry . . . it really explains a lot and helps crystallize your thinking...in order to break it up into separate things and still see it as one whole."

A learning vehicle may not be consistently effective for every student, because of the student's experiences or because of unevenness in its quality. In such an integrated learning situation, a student may be having difficulty accessing or working with a particular component of

the program, but there are other components where she may be successful. Thus, fuller opportunities to develop skills and understandings can be realized. For example, a student may not be doing as well at coursework, but be fabulous in praxis; an individual's mentor may not be nurturing, but the cohort and supervisor can compensate. A particular classroom may not be exemplary in practice, but a student can see exemplary practice in a cohort member's classroom. Moreover, she can distinguish those practices she hopes to adopt, as well as those she will observe, reflect upon, and perhaps discard.

There is a high degree of learning taking place through the program, despite the data indicating that different vehicles are often reported by some students, and observed by their supervisor, to be less than effective. Evaluation results indicate that, although many interns gave low ratings for their mentoring and opportunities to practice, they rated themselves highly in curriculum and instruction and in teaching. One student's expression of confidence is representative of what was heard from many students: "I feel comfortable to tackle anything and everything across curricular areas and provide a safe environment, hands on material, etc."

Intertwining the Personal. One interpretation for their confidence upon graduation is that Coursework, The Personal, and Supervision compensated for the weaknesses reported for Practice and Mentoring.

> I didn't see an IEP meeting except -- I'm trying to think -- you know why? Because I was the person who was basically filling in because my teacher had IEP meetings. And there were a lot of meetings I would have loved to have been a part of, and would have learned an awful lot from. But, on the other hand, we -- because of the assessment course and the assignments in that one -- ...I did feel that I was prepared when I faced my first IEP meeting this year. Because I had...gone through the exercise of analyzing the child assessment and doing a report. And so I still needed the feedback from my principal to [feel confident] I was on the right track.

The following quote illustrates the interdependence of the vehicles to insure that opportunities for learning occur for every student:

> With the clinical teaching, I actually had a very positive experience in the sense that I learned a lot. And any time I learn a lot, it's positive. In my situation, my teacher, I really thought, was too new. She found me very intimidating, which is not her fault. But she needed to clearly know her role is to mentor me, I think, and make me feel

> comfortable asking her questions to encourage my learning process, which it did not. I got absolutely no involvement in IEP implementation, or writing, whatsoever. I was in team meeting only because I requested [to be]. Only because it was...required for a course.

In teasing apart this quote the complex direction of the arrows between learning vehicles in Figure 2 can be helpful for holding the view of mutuality in relationship. This graduate's ability to reframe the quality of her internship despite apparently limited practice and mentoring may be attributable to the interactions between all of the other learning vehicles. Her way of knowing allows her to construct as positive any experience in which she learns. Learning in this situation was very likely the result of her capacity for reflection stimulated by high quality supervision and the challenges of her coursework. Requirements in her courses compensated for learning opportunities that otherwise would be missed in her practice. Coursework requirements often pushed for opportunities for practice, such as curriculum development, assessment and IEP development.

While coursework, practice and supervision may be typical in most teacher preparation models, although not necessarily in the same arrangement as this program, the TSSN program considers The Personal an equally important vehicle for learning. It is through nurturing and attending to The Personal that interns learn to name their ways of knowing.

Data indicate that the program is successful in its efforts to build on the selves each student brings to the program; and to encourage extensive self-examination, particularly in relation to the ten curricular strands. That Coursework and the Personal are woven together is evidenced in students' reports that the rigor of Coursework challenges them to reassessment, resulting in an increased sense of their capability to do work and to direct their own growth and learning. The interaction between this changed self and the content of Coursework alters their thinking so that they no longer accept theories, assumptions and perceptions without skepticism. The outcome is that they modify their approach to teaching so that they do not make decisions about the difficulties a child may be having and how to address those difficulties without data from several sources. As one employer reported about a program graduate:

> [The graduate] is truly a learner. She attends all workshops, inservice sessions and conferences at both the local school and division levels. She actively seeks help from specialists to broaden her knowledge base and increase her understanding of students with varying handicapping conditions. . . For a beginning teacher, there are no real gaps in [graduate's] knowledge and skills. She is a self-starter, and as indicated before, when she believes she lacks knowledge, she looks for ways to find out. She is open to suggestions and thrives on learning from others.

The Personal also is closely intertwined with Practice. The capacity for students to learn through Practice is, in part, because of the self they bring to the setting. Without Practice, however, the student would have little meaningful material upon which to reflect. This interaction between The Personal and Practice assures opportunities to experiment and integrate new knowledge so that interns can gain increasing insight into who they are as learners and teachers.

As one student asserted in regard to the relationship between The Personal and Practice for her "I definitely became aware of my own learning style and strengths. I applied my own knowledge to my teaching to find ways to better teach my students."

Supervision Complementing Mentoring. Mentoring and Supervision are also important to the ways in which a student is able to learn from practice. Mentoring and Supervision facilitate reflection on how students integrate and apply theory to practice, and upon the self that they bring to the practice site. This vehicle is multidimensional in that supervision is intended to complement the mentoring received at the school placement and mentoring is intended to complement the instruction the intern is receiving through coursework.

The PDS literature suggests that the mentoring relationship will enhance student learning, and promote professional development on the part of the mentor teacher (Darling-Hammond, 1994). This has not consistently been the case in TSSN. Therefore, interns may rely more heavily on their supervisors, cohort relationships, coursework and past experiences to make meaning of their classroom teaching experiences. When mentoring is working in the way that is intended in the PDS model, supervision enriches the relationship. It adds a new and different aspect, and facilitates a balance between the often conflicting responsibilities for nurturing, instruction and evaluation that are a part of being a mentor.

When mentoring doesn't work so well for an intern, supervision can help to sort out what might be an issue of fit between an intern and a mentor. It can help clarify those difficulties that might be related to the self that the intern is bringing to the school and classroom; and offer support and guidance to help the student learn from the experience and the mentor relationship, even if they feel they can't or don't want to emulate the skills or practices of the mentor.

Students found that supervisors often ameliorated the difficulties that students reported with mentors. For example, the supervisor may step in to promote learning that is typically anticipated to result from the mentor relationship: "My advisor was helpful in guiding me through lesson planning". When faced with limitations in practice or mentoring, the supervisor can mediate student learning through negation. One student's comment illustrated the necessity at times to learn through negation when faced with limitations in practice or mentoring: "I would never do as my mentor did. I looked for someone else from which to learn!"

Interns who had difficulty with mentoring for a variety of reasons frequently cited the importance of the supervisor: "[Supervisor] was an extremely direct and supportive supervisor. He encouraged me to take on my own challenges and not to let them intimidate me." Another said, "My clinical supervisor masterfully guided me through my own pedagogy. Instead of simply pointing things out, together we discovered what I was doing."

Structuring Relationships. While Coursework, Mentoring and Supervision, Practice and The Personal are designed to complement each other to insure rich learning opportunities for all students, the inherent role and careful structuring of relationships within the program insures that the complementarity can supplement or ameliorate any limitations. The elegance of these networks of relationship is in the variety available within the program. There are multiple opportunities for relationships carefully built into all aspects of the program, from the combining and recombining of students into different cohorts to the supervisor and mentor relationships available to the intern.

The construction of these different relationships as teamwork provides a framework for self-reflection, information gathering and inquiry so that interns can know what they need to

learn and how to go about learning, with the outcome being, as one student put it "I am confident in my own abilities, but I will always need input from my peers". Another stated: "That is so important, team work, and one of the areas this program is strongest in." Another responded "I have to agree with [intern], team work surfaced in all three of my evals from work."

In summary, the data indicate that the vehicles of Coursework, The Personal, Mentoring and Supervision, and Practice are the effective structures for learning. The difficulty lies in the fact that there may be constrictions within a particular vehicle, such as Mentoring or Practice. The elegance of the interactive nature of these vehicles and the network of relationships, however, permits us to compensate for any constrictions for learning within a particular structure and thus free up more space for learning within the others.

CONCLUSIONS AND IMPLICATIONS

In keeping with the spirit and intention of the TSSN program, we want to continue to rigorously scrutinize the data we are gathering; consider carefully how we can apply what we are learning to the program and to its ongoing evaluation; and examine the ways in which we might want to change the evaluation model as it is incorporated into the program. Despite the fact that the evaluation of the first two years is in its early stages of data collection and analysis, it has yielded a wealth of information about the program and about the evaluation model, design and instrumentation.

The design of the program is coherent with the values, philosophy and theories of the PDS model (Darling-Hammond, 1994). In its first year of implementation, this coherence translated into practice with minimal difficulty. For the faculty of both partners -- the school and the college -- there was a commitment to training new teachers; a commitment to creating a community of learners for the growth and development of all teachers; and a commitment to collaboration in all facets of the program so that theory and practice were co-taught.

As the college began to enter into partnerships with more schools a difference in the nature of the partnerships with TSSN for the purposes of training teachers and improving programs became apparent in the data on mentoring and practice. While there may be many

reasons for this, one consideration is that schools are familiar with the concepts of student teachers and of aides, but are not fully cognizant of the PDS model. Thus, we have embarked on several initiatives designed to address this issue, including:

- conducting regular steering committee and mentor meetings so that school faculty and administrators share a common understanding of the PDS model with college faculty; exchange feedback on its implementation in their schools; and identify additional support that may be needed
- negotiating contracts with schools that clearly articulate both partners' roles, responsibilities and contributions
- seeking funding and other resources for increasing training, research and support for inclusion of children with special needs
- planning an orientation to be jointly conducted by the schools and the college for new interns each year
- examining and refining the role of the PDS liaison in collaboration with other college programs using the same role

More specific to the outcome of the initial evaluation was the polarization of the data on the quality of practice and mentoring. Throughout this paper, numerous assumptions of this outcome have been proposed, ranging from the skill and resource challenges facing teachers in classrooms where children may have very complex and diverse needs to issues of fit between intern and mentor. It is our understanding in analyzing the results, that all of the suppositions about why some mentor-student relationships are not effective for growth and development have merit. In addition to the above school-focused activities we are planning to:

- offer a mentoring course and other training opportunities for teachers and other school personnel based on outcomes of regular mentor focus groups
- seek funding for additional training, support and incentives for mentors
- collect mentor teacher summaries of their classroom and the characteristics they find most desirable in an intern annually to compare them across years as one indication of school change
- continue faculty focus groups to further refine the list of desirable characteristics for a PDS site and mentor and to further clarify what the college has to offer in order to guide identification of, and affiliation with new school sites

- develop a rating form to be completed annually by the mentor, the intern and the supervisor in order to refine the process of matching interns and mentors
- evaluate inservice and other training and support activities, with attention to clear identification and measurement of outcomes for children, schools and interns
- continue faculty exchange around supervision and problem solving for placements where school reform is important
- maintain vigilance when there are limitations in mentoring or practice to insure amelioration by the other learning vehicles

Minutes of faculty meetings and copies of dialogues through a computer network offer a running record of the concerns and perspectives of faculty that yield rich qualitative data on the TSSN program's relationship with the school sites. These will be kept and analyzed, along with the placement evaluation forms that we will begin collecting this year from each supervisor and PDS Liaison reports.

Students engage in course evaluations, self reflection on learning goal mastery, course assignments and focus groups. Through this, and feedback from mentors and supervisors, we evaluate and reevaluate the efficacy of the design of the courses and their content, although this has not traditionally been systematic. For example, at the end of the first two years, it became apparent to faculty from formal and informal feedback that content of Literacy and Numeracy needed to be taught in two courses, and that the amount and pacing of coursework was at odds with the amount and cycle of work in the schools. Literacy and Numeracy was revised into two courses and assignment schedules were coordinated across all the courses taken during Phase II. The evaluation model needs to be refined to more deliberately and systematically coordinate and query these sources in the future.

An area which merits further examination is the way in which coursework assists the intern to learn from dilemmas of practice. While outcome data indicates successful learning, the discrepancy in the rating of practice raises several questions. As schools become clearer about their role in the development of interns we anticipate that this will become less of an issues. For now, though, it is important to ask faculty, mentors and interns, through focus groups and survey, if there are connections being forged between coursework and practice to ameliorate any

limitations in the practice setting and how those connections are established.

The data on confidence and mastery was particularly helpful to evaluate the efficacy of the program in light of the ongoing struggle for sufficient training for mastery of teaching within 14 months. The graduates' high degree of confidence, success at finding and keeping employment, and informal feedback from employers indicate that, despite their concern about not having sufficient fluency in the tasks of curriculum development and teaching, the program is successful in its design. The graduates' mastery of pedagogy and the alteration in their self-concepts to thinkers, problem solvers, and researchers has given them the confidence to teach any child, without the arrogance of thinking they know everything about how to do so. Do graduates feel a lack of fluency when making quick decisions about children's instructional needs because they need more training? Or, is their disfluency the positive result of learning to research and reflect before acting? We need to revise the evaluation process so as to tease out the answers to these questions in order to be better prepared to prioritize content and learning experiences for different students within the timeframe of the program.

As additional follow-up data from both graduates and employers is collected the answer to this question may become clearer. To date we have had difficulty accessing employer feedback. Graduates had requested that we provide them with an employer survey which they would pass on to their immediate supervisors. Less than 25% of supervisors have returned the form to date, and most of these were from first year graduates. We are considering a variety of options, including follow-up contact by phone and mail with graduates and employers or requesting copies of graduates' employment evaluations at the end of the year in lieu of the employer surveys.

We are presently engaged in many changes in the evaluation model and instrumentation as an outcome of this phase of the evaluation. Changes will include refining survey instruments and focus questions; collecting and analyzing the data from the self-evaluation instrument -- CEC Core of Knowledge Checklist and the State Certification Competency checklist; standardizing the framework for student reflection at final Portfolios; reviewing timelines for

data collection and analysis in relation to benchmarks in the program's cycle; and supporting additional funding for expansion of evaluation efforts, such as follow-up for two years, looking at teacher, employer and child change data, and taping and transcribing future focus groups and portfolio evaluations.

In summary, because the evaluation was started two years after the program began there is some variation in the sources of data across the first two years. The rich context of the program and its evolution resulted in tremendous amounts of archival data, such as the tapes of the portfolio presentations. The quality of the relationships formed in the program enabled access to graduates for further data collection. We are able, at this time, to respond to the evaluation questions: 1) Are students learning in the ways we expected them to learn, given the design of the program? -- Yes. 2) In what ways do faculty expectations for how students will learn vary from how they actually learn while working intensively in PDSs? -- Mentoring and Practice seem less effective than expected based on the literature and first year's experience. We now have sufficient data to begin to analyze other questions about the program for formative and summative use, such as the quality of student's learning in the program. Our attention in the short-term needs to focus on identifying more specifically the issues of mentoring and practice that are precluding the effectiveness expected; and improving the mentor and practice arenas on behalf of the schools, the children with special needs and the interns. Our attention in the long-term needs to turn toward demonstrating impact on children and schools through our PDS relationships and the quality of our graduates.

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